

do. of orifice of horizontal anteroposterior semicircular canal; *vt.*, do. of vertical transverse canal; *oc.*, do. of os commune of vertical anteroposterior and vertical transverse canals; *aa.*, do. of anterior ampulla; *V.*, cast of foramen of fifth pair of nerves.

Figs. 4, 5 and 6 diagrams of the semicircular canals, natural size.

Fig. 4, interior view.

Fig. 5, anterior view.

Fig. 6, inferior view.

The letters signify as follows: *aa.*, anterior ampulla; *ap.*, posterior ampulla; *hap.*, horizontal anteroposterior canal; *vap.*, vertical anteroposterior canal; *vt.*, vertical transverse canal, enlarged in its upper portion, probably accidentally; *cc.*, canalis communis of the vertical anteroposterior and vertical transverse canals; *oc.*, os commune of do.

*Notes on the Mungue; an extinct Dialect formerly spoken in Nicaragua. By Daniel G. Brinton, M.D.*

(Read before the American Philosophical Society, November 20, 1885.)

*Sources.* Nothing whatever has been published about the Mungue language, except a list of ninety-five words, by Mr. E. G. Squier in his work, "Nicaragua, its People, Scenery and Monuments." Whence he obtained this short vocabulary he does not state; but it is evidently the work of some one only slightly acquainted with the character of the language. I do not make any use of it in the present notes, except in a few instances for comparison.

My authorities are, first, Don Juan Eligio de la Rocha's *Apuntamientos de la Lengua Mungue*, MS. The author was born in Granada, C. A., June 15, 1815. By profession a lawyer, his taste led him to the study of languages, and he acquired a fluent knowledge of French, English and Italian. He was appointed instructor in French and Spanish grammar in 1848 in the University of Leon, C. A., and ten years later, 1858, published his *Elementos de Gramática Castellana* (Leon, 1858, small 4to, pp. 199). His death occurred in 1873.

While living in Masaya in 1842, he became interested in the surviving remnants of the Mungues, and undertook to collect materials for a study of their language. Unfortunately, he never completed these investigations, and many of the sheets on which he had recorded his notes were scattered. A few of them, how-

ever, were in the hands of his brother, Doctor Don Jesus de la Rocha, of Granada, who gave Dr. C. H. Berendt an opportunity to copy them in 1874.

In that same year, 1874, Dr. Berendt collected the last obtainable fragments of the Mangué. In his (printed) lecture before the American Geographical Society in 1876, he thus describes his efforts in this direction, and at the same time points out the localities where the Mangué speaking populations were located when they first came to the knowledge of the invading whites.

“The Spaniards on entering the present State of Nicaragua from Nicoya bay, and then marching through the country, came into contact first with the southern section of the Chorotegas or Mangues, as they were also called; then with a Nahuatl tribe, whose capital and king are mentioned as bearing the name of Nicarao; and after these again with Chorotegas or Mangues, who, however, did not occupy the whole tract of land up to the Bay of Fonseca, but were again separated from the Chorotegas on the shores of that bay by another foreign tribe called Maribios. Thus we obtain the three sections into which the Chorotegas of Nicaragua were divided at the time of the Conquest. Now, their language seemed to me an object worthy of having some special attention bestowed upon it—not so much for its own sake, but in order that a better understanding might be arrived at of the ethnological features of Nicaragua, which, on account of an insufficient acquaintance with its actual condition as well as with the early writers, and of the rather precarious speculations and conjectures of modern authors based upon such scanty knowledge, have become greatly confused. Having studied the Chapanean language on a former expedition, and wishing to compare it with the Chorotegan, I visited Nicaragua in the year 1874. I found that the Indian population near the Nicoya and the Fonseca bays had entirely disappeared, and in both districts only met with some local names belonging to the Chorotegan language. In the third district also, where descendants of the old stock are still living in twelve villages around the lakes of Masaya and Apoyo, I was informed that no other vestiges of the old idiom were left, the inhabitants speaking exclusively the Spanish language. I had, however, the good luck to ferret out some old people who still remembered words and phrases they had heard in their childhood; and I was enabled to collect material sufficient to convince myself and others of the identity of this Mangué or Chorotegan idiom with the Chapanean language of Mexico. I was not a moment too early in obtaining this information, for the greater number of my informants died while I was staying in the country. I still hope that with the knowledge of the Chorotegan thus gained in Nicaragua and Chiapas, it may be possible to trace their history and descent backwards

to one of the nations that were living in Anahuac in the earliest times of which our records speak."

The materials were never published by Dr. Berendt, nor, indeed, did the many other projects which occupied him allow him the leisure to collate and arrange them. I have taken them from his original notes, often in pencil and not always perfectly legible. But I believe those here offered can be depended upon as accurate, and have special value as the sole remaining vestiges of an idiom now wholly extinct.

*Synonyms.* It will be seen that Berendt speaks of this people as the "Chorotegas or Mangues." I have given the origin of these names in the Introduction to "The Güegüence, a Comedy-Ballet in the Nahuatl-Spanish Dialect of Nicaragua," published as Number III, of "Brinton's Library of Aboriginal American Literature" (Philadelphia, 1883). They adjoined on the north-east and south-west the Nahuatl-speaking tribe, who occupied the narrow strip of land between Lake Nicaragua and the Pacific ocean.

"They were of one blood and one language, and called themselves *Mánkeme*, rulers, masters, which the Spaniards corrupted into *Mangues*. The invading Aztecs appear to have split this ancient tribe into two fractions, the one driven toward the south, about the Gulf of Nicoya, the other northward, on and near Lake Managua, and beyond it on Fonseca bay. Probably in memory of this victory, the Aztec Nicaraguans applied to them the opprobrious name, *Chololteca*, 'those driven out,' from the Nahuatl verb *choloa*, in its compulsive form *chololtia*, and the suffix, *tecatl*, people; which was corrupted by the Spaniards into *Chorotegas*." (*The Güegüence*, Introduction, p. viii.)

In Squier's work above referred to they are called "Chorotegans or Dirians." The latter is from the Mangué *diri*, a hill or mountain, and was applied to that portion of them who dwelt in the hilly country south of Masaya.

The Spanish form of their native name is that which I should recommend for adoption in ethnological works.

*Early Notices.* The old historians and travelers, on whom we depend for our knowledge of Nicaragua, tell us practically nothing about this language, and little about the people who spoke it. The chieftain, called Nicoya, living on the bay of that name, was first visited by Captain Gil Gonzalez Dávila in 1523. The natives were estimated at about six thousand, who received

the Spaniards in a friendly manner, and gave them considerable gold.\*

Oviedo in his *Historia de las Indias* gives a few words of the language as follows :

*mamea*, hell.  
*nam bi*, dog.  
*nam bue*, tiger,

the last two of which correspond to those in later vocabularies.†

The Auditor Garcia de Palacio (1576) mentions the Mangué as spoken in Choluteca, Nicaragua and Costa Rica, in the last mentioned as introduced from elsewhere.‡ About a century later a colony of Mangues, several hundred in number, were found by Juan Vazquez de Coronado, almost at the extreme eastern end of Costa Rica, in the Province of Pacaca.§ Those on the Pacific Coast, about the Gulf of Nicoya, were accustomed to cross to the ocean on the north for trading purposes, and to obtain salt.|| They appear to have been a people of moderate cultivation, and rather extended commercial connections.

*Affiliations.* The Mangué is the mother tongue from which the Chapanec (or Chiapanec) of Chiapas branched off. The separation from the ancestral tribe, and the migration from Nicaragua to Chiapas, were distinctly remembered by the Chapanec off-shoot when first encountered by the whites. Remesal, in his well-known history, gives a brief but clear account of it.

The date of this occurrence cannot be specifically stated, but its occasion can be readily surmised. The Mangues at one time occupied the whole coast from the entrance of the Gulf of Nicoya to Fonseca bay. At a period which we may locate some time in the fourteenth century, a large colony of Aztecs descended the coast and seized the strip between Lake Nicaragua and the Pacific, thus splitting the Mangues in two, and driving a large portion of them out of their homes. Some of these wanderers remained with their relatives, but one body of them marched north and west until they reached a lofty peak on the

\* Letter of Gil Gonzalez Dávila to the Emperor Charles V, in *Costa-Rica, Nicaragua y Panama en el Siglo xvi*, por D. Manuel E. de Peralta, p. 9 (Madrid, 1833).

† *Historia General y Natural de Indias*, Part iii, Lib. iii.

‡ Palacio, *Carta al Rey*, Ed. Squier, p. 20.

§ See the Report of Coronado in the collection of Peralta above quoted, p. 777.

|| *Ibid*, p. 704.

Rio Grande in Central Chiapas, where they constructed a formidable fortress, and became the terror of their Nahuatl-speaking neighbors.\*

No connection has been demonstrated between the Mangue (or Chapaneć), and any other North American language, although owing to the liberal exertions of M. Alphonse Pinart, we have now in print and easily procurable, a grammar and a number of texts of the Chapaneć dialect.†

A comparison, the partial results of which I have previously published, proves that the differences between the Chapaneć and Mangue are slight and unimportant, and for purposes of collation with other stocks the two may be looked upon as identical.

In the Introduction to "The Güegüence," I pointed out some singular coincidences between the Mangue and the Aymara of Peru. Further examination of the two tongues has not added to the list given, and has weakened the belief I entertained of some possible connection in the past between them.

I take this occasion to point out an error which has crept into several philological works, that of confounding the Mangue with the Nagrandan of Nicaragua. Thus, Francisco Pimentel, in his work on the languages of Mexico, falls into the capital mistake of declaring the Chapaneć of Chiapas to be allied to the Nagrandan of Nicaragua; and to prove his assertion, gives a list of alleged Nagrandan words, all of which belong to the Mangue tongue!‡

The same confusion marks an attempt of Mr. Hyde Clark, of

\* "Vinieron antiguamente de la Provincia de Nienaragua unas gentes que cansados de andar y de las descomodades que la peregrinacion trae consigo, se quedaron en tierra de Chiapa, y poblaron en un peñol aspero orillas de un Rio Grande que pasa por medio della y fortificaronse allí, porque nunca se quisieron sujetar á los Reyes de Mejico, antes tenian continuamente guerra con sus capitanes." etc. Remesal, *Historia de Chiapa y Guatemala*, Lib. iv, cap. xiii.

† *Arte de la Lengua Chiapaneca*. Por Fray Juan de Albornoz.

*Doctrina Cristiana en Lengua Chiapaneca*. Por Fray Luis Barrientos.

These two publications comprise Vol. i of the *Bibliothèque de Linguistique et d'Ethnographie Americaines*, publié par Alph. L. Pinart (Paris, 1875).

Dr. Berendt states that the natives pronounce the name of the province *Chapa*, not *Chiapa*, and that the word is the Mangue *Chapa*, which means their sacred bird, the Ara or Guacamayo, from which they named their fortress in the State of Chiapas. Father Juan Nuñez, who was missionary among them about 1620, and who preached and wrote in their tongue, also called it "la lengua Chapaneća." See Brasseur (de Bourbourg), *Bibliothèque Mexico-Guatemalienne*, pp. 109, 110.

‡ *Quadro Descriptivo de las Lenguas Indigenas de Mexico*, Tomo iii, p. 559 (Mexico. 1875).

London, to bring into relation "the Masaya language of Nicaragua with the Sioux language." The words he quotes as from Masaya are all from the Nagrandan of Subtiaba, near Leon. There is really no relationship between the Nagrandan and Mangue, and although Dr. Latham has attempted to indicate some few analogies,\* they must be deemed quite accidental.

A comparison of about 125 words of the Mangue with the Mixteca, which I find among the Berendt MSS., reveals only about half a dozen similarities, all apparently accidental.

*Phonetics.* The Mangue words in this paper are principally in letters with the Spanish powers, some of the semi-vowels being in smaller type. The *h* is pronounced as an aspirate, and is equivalent to the *j*, which has its aspirated Spanish value.

All syllables are open; that is, they all end in a vowel sound. Thus *nĩmbu*, water, is to be divided *nĩ-mbu*. In this respect it resembles the Cherokee, the Japanese, etc.

Dr. Berendt stated that the Chapancee dialect was the most difficult of any American language he had ever studied, on account of the obscurity and uncertainty of its sounds. It is greatly syncopated, and terminal syllables are often pronounced in so low a tone that they escape the unpracticed ear. The vowels are not distinct, and many of the consonants are "alternating" as it is called, that is, one may be substituted for another without altering the meaning of the word. Thus, evil spirit (*demonio*) may be either *tixãmbi'* or *sisãmb<sup>u</sup>i*, these two being the same word pronounced indifferently, either way, by the same individual. This is by no means without parallel in American languages.

The curious frequency in the Mangue of the "resonants" *n* and *m* will strike every observer. This is also the case in the Chapanec. Albornoz regards it as a phonetic phenomenon only, and remarks, "Whenever a word begins with *b*, *g*, *y* or *d*, an *n* must be written before it, which is pronounced with the word itself." Dr. Berendt calls it an "article" which appears as *n*, *na*, *nĩ*, or *m*, especially before the letter *b*. As such, I may suggest its similarity to the Nahuatl *in*, and the Othomi *na*, both of which are demonstratives worn down almost to articles.

There is a similar resonant nasal in various South American

\* Latham, *Essays, chiefly Philological and Ethnographical*, p. 373 (London, 1860).



tongues, especially the Tupi-Guarani dialects of Brazil. It appears most frequently before the consonants *b* and *d*. Its peculiarity is that it is not an expiratory sound, but a soft *inspirate*, and as such is claimed by Dr. Nogueira to be a phonetic phenomenon confined exclusively to American tongues.\* I have been unable to decide from the descriptions within my reach of the Chapaneec phonetics, whether the initial resonant is an inspirate, and I would call the attention of travelers to this interesting point.

In addition to this simple resonant prefix there are a number of particles beginning either with *n* or *m*, which are added to indicate the absolute or independent form of the noun, that is, to characterize it when not attached to a personal possessive pronoun. Of these Albornoze gives fourteen for the singular, and seven for the plural. This will explain the striking prevalence of words beginning with these letters in the vocabulary.

Accent is of the utmost importance in both these dialects, and the identity to the eye of various words as *nyujmi*, ear and smoke, arises from absence of proper accent marks in my authorities. The words for bird, snake and flower are the same; but Albornoze gives this very example to illustrate the importance of accent, *nolô*, a snake, *noô*, a flower. Unfortunately, none of my authorities employ any accentual mark but the acute, and this appears to be syllabic. A vowel written above the line of the word, in Berendt's MSS., signifies a semi-vowel.

*Structure.* The general structure of the Mangué was clearly polysynthetic and incorporative in a marked degree. In its grammar it was no doubt identical in all essential points with the Chapaneec, about which, as above mentioned, we have considerable information in published sources. Nominal and verbal forms are defined by the categories of animate and inanimate genera, a distinction which is to a certain extent purely grammatical, as for instance, a book is considered animate, and a table inanimate (Albornoze, *Gram.*, cap. xiii). The first person plural has an inclusive and exclusive form. Adjectives usually, but not always, follow the nouns. Plurals are frequently formed by simply lengthening the terminal vowel sound.

\* See the excellent work of Dr. B. C. A. Nogueira, *Apontamentos sobre o Abakénga também chamado Guarani ou Tupi*, pp. 56, 57 (Rio Janeiro, 1876).

*The Vocabulary.* The words in the vocabulary have been obtained from the Rocha and Berendt MSS. Where these two authorities differ the variants are indicated by the affixed initials, R. and B. All words quoted for the sake of comparison from Squier, are marked by an affixed S. The observations, explanations and other remarks attached to the words and phrases are my own. The comparative expressions taken from the Chapaneec (marked, *Chap.*) are from the printed works above mentioned, or from MS. vocabularies of various authorship in my possession.

All of Rocha's words are from the dialect of Masaya; but Dr. Berendt obtained some at the villages of Masatepec, Niquindomo, and Namotiva', and this explains the occasional variants given. The differences, however, between the speech of these localities was evidently slight.

*Vocabulary: English-Mangue.*

Achiote, nariyu. (The *Bixa orellana*, a fruit tree; *achiote* is Nahuatl).

Aguacate, nirimo', narimu. (Fruit of the *Persea gratissima*).

Ancestor, kopo'. The same as *old*, q. v.

Ancestress, kapoi. Apparently a feminine form of *kopo*, old.

Anona, naria'. Fruit of the *Anona squamosa*.

Ant, an, nájn, na<sup>a</sup>.

Ara, lapa; *Chap. txapa*. The *Ara macao*, of ornithologists.

Arm, ndiro. Compare *hand*, and *finger*. Properly "the upper extremity." S. deno. *Chap. gulu<sup>a</sup>*.

Armpit, ngisa. Compare, *beard*. Perhaps "hair of the armpit."

Armadillo (*Dasypus*) nyuku'. Compare *lizard*.

Ashes, nitsu, nisú.

Atole, nambo. (A dish prepared from maize.)

Bad, gangame, ganyame. Properly *not-good*.

Bark, nanso<sup>a</sup>'.

Basket, naj<sup>a</sup>ari.

Bat, nyuta'.

Bean, nyumú.

Beast, nyumbú. Compare *tiger*.

Bear, to (to bear children) pindih.

Beard, gísa.



Bed, nakutá.

Bee, nopopo.

Beetle, nag<sup>a</sup>.

Belly, ngusi.

Bird, nori, nyuri'. Compare *snake* and *flower*. Chap. nuri.

Bitter, yasi.

Black, nansome.

Blood, nijnyú; S. nenuh.

Blue, nandipame.

Body or Flesh, nimbrome, nampoome.

Bone, nyu<sup>i</sup>.

Bowels, ngita.

Boy, nasome; R. norome; little boy, noromiñamu.

Branch (of a tree) ndiro nya; = "its arm, tree."

Brandy, nimbuyasi; = "water, bitter."

Brave, pusit<sup>u</sup>.

Brook, nanda.

Brother, mānku, mambo.

Brother, younger, mambo nyamo nasome.

Buttocks, bojo<sup>i</sup>; nbasi, basti'.

Cacao, nyúsi.

Camote, yujmi (an edible root).

Cane, sugar, niriómbome.

Cantaro (a water jar), natiyojpo.

Casava, see *yuca*:

Cat, misa, mixa.

Cat, wild, misa se nirome; = "cat of the forest."

Chachalaca, tá Sara. A kind of partridge called, in Nahuatl, *chachalacatl*.

Chalchihuitl (a green stone, Nah.), nyu se rayo; the last word, *rayo*, is Spanish, and the expression means "stone of the lightning," the belief being that these stones are thunderbolts.

Cheek, girote. Compare *face*.

Chief, ruler, mánkeme. Chap. mānazimä, from *ximá*, the head. See *The Güegüence*, Introd., p. viii, note.

Chief, female, najyumbu.

Child, nasungi.

Chile (a sort of red pepper), nīngi.

Chocolate, nimbu nyusi; = "water-cacao."

- Chocollo (a bird), naturi.  
 Church, nakúmbui.  
 Clay, nambroj.  
 Clay, potter's, nambrój se nati ; = "clay of jars."  
 Cock, a, norij<sup>u</sup>é.  
 Cockroach, nambisa.  
 Cocoyol, neme ; a species of palm.  
 Cold, poro', yoro, oro.  
 Collar, or necklace, bakoya'jo.  
 Comal (a dish or plate), nambujyo<sup>i</sup>.  
 Come, to, na.  
 Conch-shell, txote.  
 Cook, a female, naka<sup>i</sup> nakupasi. Comp. *kitchen*.  
 Corn-field, namasinyu', ndam bur'rio.  
 Cotton, naroti'.  
 Cotton, thread of, tapakúsime naròti.  
 Dance, to, tasosmo.  
 Daughter, banya nasinyamo. Comp. *son and girl*.  
 Daughter-in-law, mbájtioro.  
 Dead, kojme. Comp. *to die*.  
 Deaf, gungupajo ; = not hearing.  
 Deer, nyúmba ngami.  
 Devil, natamasimo.  
 Die, to, naga<sup>a</sup>nyu ; *imper.* kojme.  
 Dish from a gourd, nambira. Comp. *water*.  
 Distant, ha<sup>i</sup>tsu.  
 Door, nya síyu.  
 Drink, to, *imper.* koi ri (?).  
 Drum, nyunsú. Comp. *jicara*.  
 Dog, nyumbi'.  
 Dog, female, nyumbi nyaka<sup>i</sup>.  
 Ear, nyújmi.  
 Earth, land, nikupu', nambrome.  
 Eat, to, nasu, *imper.* ko<sup>i</sup>ta'.  
 Egg, nyuga-yori. Comp. *bird*.  
 Egg-shell, nanso<sup>a</sup>. Compare *bark*.  
 Enclosure, mendí.  
 Enclosure of stone, mendi nyu<sup>a</sup>.  
 Excrement, nig<sup>a</sup>.

Eye, nate.

Face, ngroti. Compare *cheek*.

Father, k<sup>u</sup>é; kújk<sup>u</sup>e; S. gooha. R. coehyo.

Feather, napa yorí.

Female, of animals, nyaka.

Finger, ndiro. Compare *arm* and *hand*. Chap. banya dilá.

Finger nail, monsu', munsú.

Fire, nyayu, naku; S. nahu.

Fish, nyujú.

Flatus, píj<sup>i</sup>.

Flea, louse, etc., nyu<sup>i</sup>.

Flesh, for eating, nampumi.

Flint, nyupa nyugo. Compare *stone*.

Flower, nyuri, niri. Compare *bird*, and *snake*

Fly, a, nimbrome.

Food, nyumuta. Comp. *bean*.

Foot, ngirá.

Forehead, gula.

Forest, nijome, nmandi.

Fork, a, nya nāngu. Compare *house*. Probably the forked stick, which supports the ridge-pole.

Friend, ngurí; manku. Comp. *brother*.

Frog, natakopó. Comp. *toad*.

Fruit, narime.

Gall, bayatimé.

Gaspar, nyuju yansu. A fish sometimes called the "lizard fish."

Girl, nasunyamo. R. najiñamu.

God, kupankeme Dio; nikus'p<sup>a</sup>. (Our Lord.) Chap. kop-andzame; comp. *chief*. S. gopahemedeo.

Good, pami, pame, yame.

Great, yok<sup>u</sup>e, yok<sup>u</sup>eme.

Green, apame, yapame.

Guacal (small dish), narí.

Guayabo (a fruit), nikonyo'.

Hair, nimbi'.

Half-breed, nyukús<sup>a</sup>.

Hamack, nyn. Comp. *mecate*.

Hand, ndiro. Comp. *arm* and *finger*. Chap. di'la.

- Hat, nimpe.  
Hatchet, nimunguyá.  
Hawk, nake'.  
He, pron. neje.  
Head, ngu' kimo.  
Heart, nambume.  
Heaven, sky, nakup'i ; nakujpu.  
Heavy, arime.  
Hedge, or fence. See enclosure.  
Henequen (a fibrous plant), notome.  
High, opome.  
Hoe, bajarítojo.  
Hog, nyuju.  
Hog, wild, nyuju mandi. Comp. *forest*.  
Honey, nambo' pu, nombó.  
Horn, nimbomo.  
Horse, nyumpie'. Comp. *tapir*.  
Hot, tsujmu, yátsumu.  
House, nangū, nge.  
Husband, boh'e. Comp. *man and male*.  
Iguana, nyumbu. Comp. *animal, beast*.  
Indian, an, namba'jimo.  
Jar, of pottery, nimbúgu.  
Jicaro (tall jar), nyúnsu.  
Kill, to, tambajme.  
Kitchen, nakupasi.  
Lake, ninda.  
Leaf, nyuma'.  
Leg, ngiko.  
Light, *adj.* ngári me ; = not-heavy.  
Lightning, kōyo'mo (?).  
Lion, cougar, nyumbú nyan̄gami. Comp. *deer*.  
Little, kame ; R. ñamu.  
Lizard, nyukú.  
Low, nyamo. Comp. *small*.  
Macana (an iron implement for cutting brush), nampúj.  
Mecapal (a net for carrying loads), napalumu.  
Machete (a heavy knife), nimb'u.  
Maize, namá.

Maize, ear of, nyupó.

Maize, cob of, neje'.

Maize, green, nyopome.

Maize, cooked (nistamal), nyu'ritu.

Maize, masa of, nambima.

Male, of animals, j<sup>ve</sup>, f<sup>ve</sup>.

Mamma, su ngitsu, ngisu.

Man (homo), ndijpu. *Chap.* dipaju.

Man (vir), nyugo, nojue, enkaj; S. nuho. *Chap.* nu<sup>a</sup>.

Mantle, of cotton, nambu sáŋgui; R. nimbu ranguma.

Married man, koipujma nasominyamo.

Married woman, nojí.

Mat, nuri.

Metapail (hand-stone for pounding grain), ndiro nyupa (hand-stone).

Metate (mealing stone, mortar), nyupá; = *stone*.

Mill woman, a, nasinyamo tapa' kup<sup>i</sup>.

Mole, nyu'kupu. *Comp.* *armadillo*.

Money, najmo.' *Comp.* *silver*.

Monkey, nambi.

Moon, yu. *Chap.* yujú.

Mother, ngumo; nyame; ngimo; S. goomo. R. guirmoh.

Mountain, hill, tiri, diri.

Mouth, nyunsu; R. ñunzu.

Much, pókopi.

Musquito, néju.

Nacatamal (maize cooked with flesh), nyuga mpume. *Comp.* *tamal*.

Navel, ngutinyamo.

Near, kopunapu.

Neck, nko<sup>i</sup>.

Negro, a, nanso'me. *Comp.* *black*.

Nephew, batsún kényamo.

Nest, ngä. *Comp.* *house*.

Net (for carrying), niskupu, namu.

Net (for fishing), najkupu; niskupu se yuju.

Night, koyujmi (it is now night).

No, áku.

Nose, nyungú; R. nuñgu.

- Old, man, kopo'. Comp. *ancestor*.  
 Old woman, naka', naska'me.  
 Opossum, niyú.  
 Orphan, butájmu.  
 Pain, gaime.  
 Parrot, nimbusojo.  
 Pearl color (nacar), narimbame.  
 Pebble, nipa. Comp. *stone*.  
 Penis, bu'yore.  
 Petticoats, nimbusame; nambusaŋgume. Comp. *mantle*.  
 Pigeon, nyurinyamo.  
 Pineapple, nindi.  
 Pinole (maize roasted and pulverized), nambari.  
 Pisote (a badger?), nyundi.  
 Plantain, green, nirinte, nikotona.  
 Plantain, ripe, ndurime.  
 Plate (of dried gourd), nambira.  
 Pleiades, the, napopo.  
 Poor, nambájimo, nambainjume.  
 Pretty, tapustxuya.  
 Priest, ku'jk'é.  
 Privates (female), sungip'ai motxo'tete,  
 Rabbit, nyuku. Comp. *lizard*.  
 Rain, nimbu. Comp. *water*.  
 Rat, nangi.  
 Red, arimbome.  
 Reed, n'jeri.  
 Rind (peel), nanso'a'. Comp. *bark*.  
 River, neju.  
 Road, niro.  
 Roof, nimú, nakamu'.  
 Room, apartment, nakangu. Comp. *home*.  
 Rope, string (mecate), nyu'.  
 Sacate (a species of grass), nimú, nakamo.  
 Saliva, nimbójmo.  
 Salt, niri.  
 Sandal, or moccasin, nyansu, ninsu.  
 Sapote, red (a fruit), noxa', nyuxa'.  
 Scorpion, nyumbukukí.



- Sea, nimbu yumbu,  
 She, pron. neja. See He.  
 Shirt, for men, mboyú.  
 Shirt, of women, nayu.  
 Shore, ninda. Comp. *lake*.  
 Shoulder, inku<sup>l</sup>.  
 Silver, najmo. Comp. *money*.  
 Sing, to, undamo.  
 Sister, boronyamo, mambo. Comp. *brother*.  
 Skin, hide (of animals), nínsu, nansú, nyún su.  
 Sleep, to, nagu.  
 Small, txote, nyamo. Comp. *low*.  
 Smoke, nyujmi; S. nemare.  
 Snake, nyurí. Chap. nulú. Comp. *bird and flower*.  
 Son, banya.  
 Son-in-law, ngismó.  
 Sorcerer, nyu<sup>u</sup>ja.  
 Sour, yagu.  
 Speak, to, nata, *imper.* papa'me.  
 Squirrel, naré.  
 Star, nyutí; R. nuti; S. nuete. Chap. nahuiti.  
 Stone, rock, nyupá (pl. nipa).  
 Stool, nambu ku ta'.  
 Sugar, nombó. Comp. *sweet*.  
 Sun, nyumb'i, nomo; S. numbu. Chap. mapíju. Comp. *moon*.  
 Sweet, nombo'.  
 Tamal (a dumpling of sweetened maize), nyuga.  
 Tapir, the, nyumpié mandi. Comp. *forest*.  
 Tear, a, nimbu nate. Comp. *water and eye*.  
 Tenamaste or cooking stone, hajmi nyugu (three stones),  
 nakupasí (see, to cook), nikusugo'.  
 Thief, tiposi'tinyo.  
 Thorn, ni, nindi.  
 Thunder. Koi tapu'meme; lit, "it thunders."  
 Thrush, nyúj'a. A species of *Caprimulgus*.  
 Tick, nambisá, nansumá.  
 Tiger, jaguar, nyumbú. Comp, *animal*.  
 Tiste (a drink of cacao, etc.), nimbyusi. Comp. *water*.  
 Toad, natakopó.

Tobacco, nyumurime; nimburime; S. nemurema. To smoke tobacco, fasomo nimbu rimi

Tomate, naripo.

To-morrow, majimi. Comp. *yesterday*.

Tongue, grij<sup>u</sup>í.

Tooth, niji.

Tortilla, no<sup>i</sup>.

Totoposte (a kind of corn-bread), nyua yan<sup>u</sup>jí.

Town, namá puma, namépume.

Tree, nya. Comp. *wood*.

Trough, nimbóya. Comp. *water*.

Turtle, of water, nyuka,

Ugly, ganyame. Comp. *bad*.

Unio (the shell so-called), nyukanyamu.

Vapor (mist, steam, etc.), ndipí

Vase (tinaja), nojpú.

Washwoman, nasinyamo tapapa'poro.

Wasp, najú (?).

Water, nimbú.

Wax, nyu.

Well (noun), kita.

Where? nde.

White, nandirime.

Wife, mboome, njujmi. Comp. *husband*.

Wind, nitíu'; níjít'u. S. neshtu.

Woman, noji, nasi.

Wood, nya, nindomi (?).

Yellow, nandiume.

Yes, un; taspo (?).

Yesterday, yajimi.

Yuca (the *Yatropa manihot*), noya, nuya. Chap. niya.

#### Numerals.

1. tike.
2. ha, ja, jami, jojo.
3. hajmi, jajame.
4. hahome.
5. hagujmi.
10. jendo.
20. jajué.
800. ja'imbí.

*The Verb "to be," R.*

I am,	cejo.
Thou art,	simuh.
He is,	neje sumu.
We are,	eis mi muh.

*Pronouns.*

I,	saho, S.
My,	amba, mba.
He,	neje, R.
She,	neja, R.

*Phrases.*

Koi múrio, It is already dawn.

Koi yujmi, It is already night.

Koi prijpi, It is already growing dark.

Koi újumbo, He has already urinated.

Koi gaimi ndiro, He gave me his hand.

Koi pajo nama siñú, I am going to die (ya me voy à la muerte).

Koi-li nimbuyati, I drank some brandy.

Koi-tā cutaca ñumbi', I ate like a dog.

Koi-li gipomo ga muningui, I ate broth with chile.

Tagüaime ga muñunso yok'e, Give me a large jar.

Tari nimbuin, on güari? Will you drink some tiste, or will you not?

Oyat us ma? How do you like it (*i. e.*, hot or cold)?

Pókopi ndijpo, }  
Taku pámu ndijpú, } Many people,

Koi jini kújk'e, His father died.

Muri kagro<sup>i</sup>, Here is the old woman.

Ai nambunú ju, I have a pain in the belly.

Ni koi sime, You have already bought.

Pe ya puti nakutá, Go and lie down in the room.

Tiki numapuna, It is the town.

Nam bu mejo, His stomach is weak.

Koi tsujmú nimbu, The water is already warm.

Koi puró nimbu, The water is already cold.

Koi piro, He has already come.

Pami nyumuta, The food is good.

Cajo rismoh, I am seated.

Neje zumu rimah, They are lying down.

Guay cane noy, Give me a piece of tortilla.

Koi guaja, I have already given you some.

Garoh, Not yet.

Ejeh }  
Uji ! } Take some !

Susupusea ? }  
Kuj mi mo ? } How are you ?

Ko' mi muya' i ku ? And you, how are you ?

Camo kujmi umyaique, Nasi pujimo camo ? There is nothing  
new ; and you, how are you ?

Gusapo, Take a seat.

Nam bro' gatsuro yaji ? Why did you not come yesterday ?

Koi k<sup>u</sup>eme, I was up there.

Kupa kastai, Señor, Good-by, Señor.

Nohue opome, A tall man.

Nya opome, A high tree.

Nya nyamo, A short tree.

Nyumbi yok<sup>e</sup>, A large dog.

Nyumbi pusit'u, A brave dog.

Kōyómo nikúj<sup>i</sup> nímbu, With thunder comes rain.

Ko<sup>i</sup> pirami nimb<sup>i</sup>, Already comes the rain.

Tapuko kuno tipo kunyo, Let us go to see the sick man.

Mundamó, The pigeon sings.

Nde yat supu is ya ? Where are you going ?

Tsupu nekajui, I am going to the garden.

Munsu supu kujkui, They are (go) lame.

Ropia, Come here.

Ropia no somíngamo, Come here and sweep.

Koi apiñame naturi, The Chocollo (bird) has already cried.

Koi píndih Juaná, Joanna is with child.

Pieyas mah, She already was.

La puta (*Span.*) ansu punah, The whore that bore thee.

Cumbú puy muh, I do not remember.

Neje rumu coy cuhme, He is already a great man.

Nis puzu punah ? What did she bring forth ?

Naci ñamu, A little girl.

Taru miro, They are all mine.

Neja guirmiño, That is my half.

Niora mûta pu ninda? Are you going to the shore?

Taspo, Yes.

Ya pu camu, In a little while.

Mu koi eu pumé, Thou hast already seen it.

Koi eu pumé, I have already seen it.

Uño! See!

Mis upa' ? Where are you going?

Umimo uyako, }  
Pasi pújimo, } We are out of breath.

Pangare' manijitaré, Be quiet, I will pay you to-morrow.

Gugapi, koy ujmi, Let us sleep, it is night.

Bu'si na<sup>a</sup>, munikako, Get away from here, you son of a devil!

Nim bu' tajo pa'yamo? What were you doing by the water?

Tapame, Be good.

Motan atima nyumpia, You come on horseback.

### *Observations on the Vocabulary.*

*Prefixes.*—The most frequent prefixes in the vocabulary are *nyu* and *nya*. They probably indicate the position of the noun as independent of expressed possessive relations. In the Chapanec they are also found, but not so commonly. They do not appear to be classificatory particles, as they are prefixed to the names of the most diverse objects.

*Generic Names.*—These are quite common, as is frequently the case in American languages, in spite of what has often been said to the contrary. The word *nyu-mbu* means any large quadruped; *nyu'*, any insect; *narimu*, any kind of wild fruit, etc. It must be remembered that the genera into which individuals are grouped have a widely different connotation from those to which we are accustomed.

*Cat.*—The word for cat, *misa*, seems identical with the Cakchiquel *mez*. In Chapanec it is *kitu*, reminding one of *kitten*. As the domestic cat was unknown in America before the discovery, these words can probably be traced to some European source.

*Color Names.*—The color names appear difficult to analyze, and vary from those in Chapaneec. Thus, as given by the various authorities, they are :

	Mangue.	Chapaneec.
Black,	nanzome, R.	dujamä.
White,	nandirime, R.	dilimä.
Yellow,	nandiume, R.	nandikumä.
Blue or Green,	{ nandipame, R. apame, B.	ndipamä.
Red,	arimbome, B.	nduimä.

In these adjectives the termination *me* or *mä* does not belong to the root. Father Abornoz tells us that this suffix characterizes adjectives in the singular number, when they qualify a certain class of nouns "in *tighe*." (See his *Gram.* p. 15.) The nasal or resonant beginning most of them is also a mere prefix.

*Proper Names.*—But few native families of the Mangue districts of Nicaragua have retained names drawn from their ancient tongues. In a list before me of several hundred persons in Masaya and Managua, the only surnames from the Mangue are *Norori*, *Ñamendi*, *Namullure*, *Putoi*, *Nionongue*, *Macanche*, and perhaps *Huembes* and *Piura*. Generally, the natives adopted Spanish surnames.

On the other hand, a large number of local names, derived from the Mangue language, on the map of Nicaragua still define the region once occupied by this nation. Such are *Nindirira* (from *ninda*, shore, *diri*, hill), *Nakutiri* (from *naku*, fire, *diri*, hill), *Monimbe* (*nimbu*, water, rain), *Nandasimo* (*nanda*, brook), *Mombonasi* (*nasi*, woman), *Masaya*, *Managua*, *Namotiva*, *Norome*, *Nicoya*, *Oretina*, etc., etc.

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*Photography by a Lightning Flash.*

*By Prof. Edwin J. Houston.*

(Read before the American Philosophical Society, November 20, 1885.)

Mr. Albert S. Barker, of Philadelphia, has recently sent me two photographic views of his stable and surrounding objects, the exposure for which were made during an exceedingly dark night, with no other illumination than a single lightning flash for each.

The photographic negatives were taken during the severe storm that